

REMARKS

Entry of the foregoing and further and favorable reconsideration of the instant application, pursuant to and consistent with 37 C.F.R. § 1.111, are respectfully requested.

Claim Status:

Prior to the instant Amendment, and as correctly reflected in the Office Action Summary, Claims 1-23 were pending. *Office Action mailed February 7, 2007, Office Action Summary, Item 4.* Claims 1-23 are subject to a restriction requirement. *Id. at Item 8.*

Summary of Claim Amendments:

By the foregoing claim amendments, Applicants have amended Claims 4, 12, and 18 to correct minor, typographical, and/or linguistic issues. Support for the amendments to Claims 1, 4, 12, and 18 can be found throughout the Specification, and at least at the prior corresponding claims. Accordingly, no new matter has been added.

Response to Restriction Requirement:

The Examiner has restricted Claims 1-23 into four groups:

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| <u>Group I</u> | Claims 1-6, 19, and 20 (“drawn to the technical feature of a nucleic acid sequence containing a fragment of the genome of a group 1 coronavirus”) |
| <u>Group II</u> | Claims 7-11 and 14 (“drawn to the technical feature of a vector comprising a first and second nucleic acid sequence; and a host cell comprising the vector”) |
| <u>Group III</u> | Claims 12 and 13 (“drawn to the technical feature of a method for producing a product comprising cultivating a host cell for the expression of a heterologous nucleic acid”) |

Group IV Claims 15-18 and 21-23 (“drawn to the technical feature of a vaccine”)

Office Action mailed February 7, 2007, Page 2. The Examiner believes that the “inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature among these inventions is the [] nucleic acid sequence of genome fragments of a group 1 coronavirus, which is disclosed in Motokawa *et al.* (1996). Therefore, the technical feature is not a contribution over the art; thus, the claimed invention cannot be said to have unity of invention.” *Office Action mailed February 7, 2007, Page 2.* Applicants respectfully traverse this restriction requirement.

Applicants' Claim 1, from which Claims 2-23 depend either directly or indirectly, is not merely a “nucleic acid sequence of genome fragments of a group 1 coronavirus.” Instead, Claim 1 is directed to: “a) a sequence of nucleotides consisting of from nucleotide 100 to nucleotide 649 of the genome of a group 1 coronavirus, said nucleotide sequence including the encapsidation sequence of said coronavirus; b) a nucleic acid sequence analogous to the sequence defined in a) that contains the encapsidation sequence of a group 1 coronavirus; c) a nucleic acid sequence complementary to either of said sequences a) or b); or d) a nucleic acid sequence with a secondary structure similar to that of an encapsidation sequence (ES) of a group 1 coronavirus, independent of the primary nucleotide sequence.” That is, Claim 1 requires that the nucleic acid sequence is nucleotides 100-649 of a group 1 coronavirus which includes the encapsidation sequence; an analogous sequence; a sequence that is complementary to nucleotides 100-649 of a group 1 coronavirus that includes the encapsidation sequence or to an analogous sequence; or a sequence whose secondary structure is similar to that of an encapsidation sequence of a group 1 coronavirus.

Applicants respectfully submit that Claims 1-23 each possess a contribution over

the art, including Motokawa *et al.*, “*Comparison of the Amino Acid Sequence and Phylogenetic Analysis of the Peplomer, Integral Membrane and Nucleocapsid Proteins of Feline, Canine and Porcine Coronaviruses*,” 40(6) MICROBIOLOGY AND IMMUNOLOGY 425-433 (1996) (“Motokawa”), full copy attached. For Motokawa to anticipate Claims 1-23, Motokawa would have to disclose each and every element of Claims 1-23. *See, e.g., Novo Nordisk Pharms., Inc. v. Bio-Tech. General Corp.*, 424 F.3d 1347 (Fed. Cir. 2005) (“Anticipation based on a printed publication under section 102(a) requires the presence in the publication of each and every limitation of the claimed invention.”).

Applicants respectfully submit that each and every limitation set forth in Claims 1-23 is not found in Motokawa. For example, while Motokawa sets forth, *inter alia*, the deduced amino acid sequences for the M, N, and S proteins of TGEV strain Purdue, Motokawa is silent with regard to Claims 1-23’s limitation regarding the inclusion of encapsidation sequences. Accordingly, Motokawa does not anticipate Claims 1-23 and Claims 1-23 each possess a contribution over the art. Because Motokawa does not anticipate Claims 1-23, Applicants respectfully request that the restriction requirement be withdrawn, since the technical feature of Claims 1-23 does offer a contribution over the art.

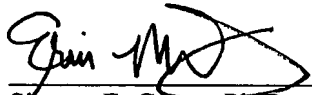
If, however, Applicants must elect a Group, despite their traversal and despite the foregoing arguments, Applicants elect the claims of Group I, *i.e.*, Claims 1-6, 19, and 20.

CONCLUSION

In the event that there are any questions relating to this Amendment and Response to Restriction Requirement, or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,
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